matter of Applicants' invention. In particular, Claims 27-29, 33, 35-39, and 43-46 have been amended to change their dependency. Claims 26 and 32 have been amended to correct minor errors. New independent claims 47 and 48 (and claims dependent therefrom) are directed to methods of treating cancer in an animal comprising administering to the animal a therapeutically effective amount of an antibody immunospecific for C3b(i) covalently linked to IgG or IgM bound a cancer cell, or an antibody immunospecific for C3b(i) covalently linked to a protein or lipid on a cancer cell. New independent claim 49 (and claims dependent therefrom) is directed to a method of treating cancer in an animal comprising administering to the animal a therapeutically effective amount of an anti-C3b(i) antibody and an anti-CD20 antibody. A marked up version of the claims amended herein, with deletions indicated by brackets, is attached hereto as Exhibit B. Support for the new claims can be found throughout the present application, see, *e.g.*, page 12, line 23, page 17, lines 15-20, page 21, line 19 to page 26, line 4, page 57, lines 6-16, page 62, lines 12-30, and page 69, lines 20-29 of the specification of the present application. Applicants respectfully assert that the new claims do not constitute new matter. Claims 25-71 are, therefore, pending in the present application. A copy of the pending claims is attached hereto as Exhibit C.

Applicants respectfully request entry of the foregoing amendments and remarks into the file history of the above-identified application.

1. THE REJECTION UNDER 35 U.S.C. § 112, FIRST PARAGRAPH, SHOULD BE WITHDRAWN

Claims 23-46 are rejected under 35 U.S.C. § 112, first paragraph, for lack of enablement. In particular, the Office Action alleges that the specification fails to provide sufficient support for the breadth of the claimed invention. The Office Action alleges that the specification fails to teach any qualitative or quantitative difference in antibody-dependent lymphocyte-mediated cytotoxicity ("ADCC") and that the specification fails to teach that a synergistic or additive effect results from the administration of more than one anti-C3b(i) antibody. The Office Action also alleges that the specification fails to "teach or suggest that C3b(I), when deposited on IgM or IgG would be physically altered as to exhibit a different binding specificity with respect to a particular anti-C3b(I) antibody." The Office Action further alleges that the specification fails to provide any guidance with respect "to the proximity of tumor antigens and the location of C3b(I) deposition on the cell surface, and

therefore, one of skill in the art would not know how to make or screen for antibodies which preferentially bound to C3b(I) associated with IgM, IgG, tumor cell proteins or lipids." For all the reasons set forth below, Applicants assert that the rejection under 35 U.S.C. §112, first paragraph, cannot stand and should be withdrawn.

The test for enablement is whether one of ordinary skill in the art could make or use the invention, without undue experimentation from the disclosure in the patent specification coupled with information known in the art at the time the patent application was filed. *U.S. v. Telectronics, Inc.* 857 F. 2d 778, 8 U.S.P.Q. 2d 1217 (Fed. Cir. 1988). Enablement is not precluded even if some experimentation is necessary. *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F. 2d 1367, 231 U.S.P.Q. 81 (Fed. Cir. 1986), *cert. denied*, 480 U.S. 947 (1987). The Court of Appeals for the Federal Circuit has determined that experimentation, though laborious, is not undue experimentation where the specification provides a reasonable amount of guidance. *In re Wands*, 858 F. 2d 731 (Fed. Cir. 1988). In the present instance, the specification provides one of ordinary skill in the art with sufficient guidance to meet the requirements of Section 112.

Applicants respectfully assert that the specification coupled with information known as of the effective filing date of the present application provides sufficient guidance to enable one of skill in the art to practice the claimed invention without undue experimentation. First, contrary to the allegations in the Office Action, the specification does, indeed, teach that C3b(i) covalently linked to IgM or IgG bound to cancer cells, or C3b(i) covalently linked to proteins or lipids on cancer cells contains unique and specific antigenic determinants different from those expressed by C3 fragments in solution. See, *e.g.*, page 26, lines 8-17, page 62, lines 12-30, and page 69, lines 20-29 of the specification of the present application. Second, the specification provides methods for producing and identifying antibodies immunospecific for C3b(i) covalently linked to IgM or IgG bound to cancer cells, or C3b(i) covalently linked to proteins or lipids on cancer cells. See, *e.g.*, page 21, line 19 to page 26, line 4, page 57, lines 6-16, page 62, lines 12-30, and page 69, lines 20-29 of the specification of the present application. In particular, the specification teaches a competitive binding assay to assess the immunospecificity of an anti-C3b(i) antibody for C3b(i) covalently linked to IgM or IgG bound to cancer cells, or C3b(i) covalently linked to proteins or lipids on cancer cells versus C3b(i) in solution (see page 57, lines 6-16 of the specification of the present application). Further, as of the effective date of the instant application, methods for producing and

identifying antibodies immunospecific for C3b(i) covalently linked to IgM or IgG bound to cancer cells, or C3b(i) covalently linked to proteins or lipids on cancer cells were well known to those of skill in the art. For example, Chapter 6 in Harlow et al., eds, 1988, Antibodies A Laboratory Manual, Cold Spring Harbor, New York ("Harlow"; attached hereto as Exhibit D) describes methods for producing and identifying antibodies which specifically bind to an epitope. Specifically, Harlow describes immunoassays (*e.g.*, enzyme-linked immunosorbent assays) which can be used to identify antibodies which specifically bind to particular epitopes. Thus, the present specification coupled with the information known in the art would enable one of skill in the art to produce and identify anti-C3b(i) antibodies immunospecific for C3b(i) covalently linked to IgM or IgG bound to cancer cells, or C3b(i) covalently linked to proteins or lipids on cancer cells, without undue experimentation.

Third, contrary to the allegations in the Office Action, one of skill in the art would not expect to have anti-C3b(i) antibodies immunospecific for C3b(i) covalently linked to IgM or IgG bound to cancer cells, or C3b(i) covalently linked to proteins or lipids on cancer cells to elicit the same ADCC as anti-C3b(i) antibodies which bind to C3b(i) in solution. In fact, the specification teaches that the anti-C3b(i) monoclonal antibody 3E7 binds preferentially to C3b(i) located on opsonized cancer cells, and is less susceptible than the monoclonal antibody 7C12 to inhibition by C3b(i) fragments in the medium (see, page 62, lines 12-30 of the specification of the present application). The differences in the ability of different anti-C3b(i) antibodies to bind to opsonized cells is indicative of the differences in ADCC which would result from the use of different anti-C3b(i) antibodies. Accordingly, one of skill in the art would appreciate that all the anti-C3b(i) antibodies taught in the specification would not elicit the same ADCC. In particular, one of skill in the art would appreciate that the ADCC would vary from antibody to antibody and that the immunospecificity of the antibody for C3b(i) covalently linked to IgM or IgG bound to cancer cells, or C3b(i) covalently linked to proteins or lipids on cancer cells would affect the ADCC.

Finally, with respect to the allegation that the specification does not teach a synergistic or additive effect of administering more than one anti-C3b(i) antibody, Applicants respectfully assert that there is no requirement under Section 112 that the specification teach such an effect.

Thus, the present specification provides ample guidance to the skilled artisan to practice the claimed methods. Accordingly, Applicants submit that the pending claims are

fully enabled for the scope of the claimed subject matter, and respectfully request that the rejection under 35 U.S.C. § 112, first paragraph, be withdrawn.

2. THE CLAIMED INVENTION IS NOT OBVIOUS

2.1. THE REJECTION OF CLAIMS 23, 35-37, 40-42, 44-46 CANNOT STAND AND SHOULD BE WITHDRAWN

Claims 23, 35-37, 40-42, and 44-46 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Irie, K., 1975, Proc. Am. Assoc. Cancer Res. 16:170 ("Irie"), Michael et al., 1993, FASEB 7:A375 ("Michael"), Howard and Hughes-Jones, 1988, Complement-Mediated Lysis with Monoclonal Antibodies, In: Monoclonal Antibody Therapy Vol. 45, pp. 3 ("Howard"), and Neri et al., 1983, European Journal of Gynaecological Oncology 4:37-40 ("Neri") in view of Perlman et al., 1981, Journal of Experimental Medicine 153:1592-1603 ("Perlman"). The Office Action alleges that: (1) "Irie teaches human cancer cells react with humoral antibodies such IgG, IgM and IgA to fix C3, but that non-cancerous cells do not fix C3"; (2) Michael teaches "that malignant epithelium synthesizes iC3b"; (3) Howard teaches that C3b(I) is "the most important opsonin present on a target surface, and that the extent of phagocytosis of a target cell coated with C3b(I) is greatly enhanced by IgG also attached to the surface of said cell"; and (4) Neri teaches "an immunoassay for circulating C3bi and correlates the level of C3bi in blood with the presence of a malignancy". The Office Action concedes that neither Irie, Michael, nor Neri teach a method of treating or preventing cancer by administering an anti-C3b(i) antibody. However, the Office Action alleges that Perlmann teaches that "target cells having C3bi were lysed by lymphocytes only in the presence of antibody and that C3bi enhanced ADCC more strongly than other complement fragments such as C3b or C3d." The Office Action alleges that it would have been *prima facie* obvious to one skilled in the art at the time the invention was made to treat or prevent cancer by administering an anti-C3b(i) antibody as well as IgG, IgM and complement components. For the reasons detailed below, the rejection cannot stand and should be withdrawn.

Applicants respectfully assert that Irie, Michael, Howard, Neri and Perlmann do not teach or suggest methods of preventing or treating cancer in an animal comprising administering to the animal an anti-C3b(i) antibody. Hence, this rejection cannot stand against Claim 23. In addition, Applicants have amended Claims 35-37 and 44-46 (claims dependent therefrom) such that they no longer depend from Claim 23. The amendments to

Claims 35-37 and 44-46 (claims dependent therefrom) render the rejection of Claims 35-37, 40-42 and 44-46 under 35 U.S.C. § 103(a) moot. Accordingly, Applicants respectfully request that the rejection of Claims 23, 35-37, 40-42 and 44-46 under 35 U.S.C. §103 be withdrawn.

2.2. THE ART CITED DOES NOT RENDER CLAIMS 25, 29, 30 AND 32 OBVIOUS AND SHOULD BE WITHDRAWN

Claims 25, 29, 30 and 32 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Irie, Michael, Howard, Neri and Perlman in view of Deo et al., 1998, Journal of Immunology 160:1677-1686 ("Deo"). The Office Action alleges that Irie, Michael, Howard, Neri and Perlmann for the reasons recited in Section 2.1 above render obvious a method of treating or preventing cancer by administering an anti-C3b(i) antibody. The Office Action concedes that these references do not teach a method of treating or preventing cancer comprising administering an anti-C3b(i) antibody and an antibody immunospecific for a tumor antigen, or a bispecific antibody which binds to C3b(i) and an effector cell antigen. However, the Office Action alleges that "Deo teaches the use of bispecific antibodies directed toward both tumor antigens and effector cell antigens to promote ADCC." The Office Action alleges that it would have been *prima facie* obvious to one skilled in the art at the time the invention was made to treat or prevent cancer comprising administering an anti-C3b(i) antibody and an antibody immunospecific for a tumor cell antigen. The Office Action also alleges that it would have been *prima facie* obvious to one skilled in the art at the time the invention was made to treat or prevent cancer comprising administering a bispecific antibody that binds to C3b(i) and an effector cell antigen. For the reasons detailed below, the rejection cannot stand and should be withdrawn.

Applicants have amended Claim 29 (and thus, claims dependent therefrom, *i.e.*, Claims 30, 31, and 32) such that it only depends from Claim 25 or 26. Claim 25 is directed to methods of treating or preventing cancer in an animal comprising administering to the animal an anti-C3b(i) antibody and an antibody immunospecific for a cancer cell antigen. Claim 26 is directed to methods of treating or preventing cancer in animal comprising administering to the animal a nucleic acid sequence encoding an anti-C3b(i) antibody and a nucleic acid sequence encoding an antibody immunospecific for a cancer cell antigen.

A finding of obviousness requires a determination of the scope and content of the prior art, the level of ordinary skill in the art, the differences between the claimed subject matter and the prior art, and whether the differences are such that the subject matter as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made. *Graham v. Deere* 383 U.S. 1 (1996). The proper inquiry is whether the art suggests the invention, and whether the art provides one of ordinary skill in the art with a reasonable expectation of success. *In re O'Farrell* 853 F.2d 894, 7 USPQ2d 1673 (Fed. Cir. 1988). Both the suggestion and the reasonable expectation of success must be founded in the prior art and not in the Applicants' disclosure. *In re Vaeck* 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). It is impermissible to engage in hindsight reasoning, using the claims as a frame and the prior art reference as a mosaic to piece together a facsimile of the claimed invention. *W.L. Gore & Assoc., Inc. v. Garlock, Inc.* 220 USPQ 303, 312 (Fed. Cir. 1983).

Neither Irie, Michael, Howard, Neri, Perlman nor Deo, alone or in combination, teach or suggest the methods recited in pending Claims 25, 29, 30 and 32 (*i.e.*, methods of treating or preventing cancer in an animal comprising administering to the animal an anti-C3b(i) antibody and an antibody immunospecific for a cancer cell antigen). Irie is merely an abstract that describes the presence of complement on cancer cells as detected *in vitro* utilizing an anti-human C3 antibody. Michael is merely an abstract that describes an observation that C3b(i) is detectable in the supernatant of *in vitro* cultures of the human cervical carcinoma line HeLa S3. Howard teaches that "[p]hagocytosis of target cells coated with C3 takes place as a result of the combination between C3 and the complement receptors CR1 and CR3 on phagocytic cells", and that phagocytosis is greatly enhanced by the presence of IgG attached to the target cell surface (see Howard at page 3, last paragraph). Howard also teaches that C3b(i) is active in phagocytosis and may be the most important opsonin on the target cell surface. Neri describes the use of a competitive immuno-enzymatic C3b(i) assay to measure the level of circulating immune complexes ("CIC") in the serum of patients with gynecological malignancies and healthy individuals. Neri states that CIC levels, as assessed by C3b(i) levels, were higher in patients with gynecological malignancies than healthy individuals. Neri suggests that CIC levels may be useful for the diagnosis, monitoring and prediction of the recurrences of malignancies, but eludes to the fact that CIC levels may not be useful in the early diagnosis of malignancies. Perlman teaches that C3b(i) bound to target cells (*i.e.*, erythocytes) enhances antibody-dependent lymphocyte-mediated cytotoxicity.

Neither Irie, Michael, Howard, Neri nor Perlmann teach, suggest or contemplate methods of treating or preventing cancer in animal comprising administering to the animal an anti-C3b(i) antibody, much less methods of treating or preventing cancer in an animal comprising administering to the animal an anti-C3b(i) antibody and an antibody immunospecific for a tumor cell antigen. Further, neither Irie, Michael, Howard, Neri nor Perlmann teach, suggest or contemplate treating or preventing cancer in an animal comprising administering to the animal an antibody immunospecific for a tumor cell antigen and a bispecific antibody which is immunospecific for C3b(i) and an effector cell receptor or antigen.

The deficiencies of Irie, Michael, Howard, Neri and Perlmann are not cured by Deo. Deo teaches that bispecific molecules directed to the Fc receptor for IgA (FcαRI) and tumor antigens promote ADCC of tumor cells. Deo suggests that FcαRI-directed bispecific molecules may offer treatment options for malignancies and other diseases. Deo does not teach or suggest bispecific antibodies immunospecific for C3b(i) and an effector cell receptor or antigen, much less the use of such antibodies in the prevention or treatment of cancer in animals. Further, Deo does not teach or suggest methods of preventing or treating cancer in an animal comprising administering to the animal an antibody immunospecific for a tumor cell antigen and a bispecific antibody immunospecific for C3b(i) and an effector cell receptor or antigen. Thus, neither Irie, Michael, Howard, Neri, Perlmann nor Deo, alone or in combination, teach or suggest the methods recited in pending Claims 25, 29, 30 and 32, let alone provide a reasonable expectation of success. Accordingly, the rejection of Claims 25, 29, 30 and 32 under 35 U.S.C. § 103(a) cannot stand and should be withdrawn.

2.3. THE CITED ART DOES NOT RENDER CLAIM 31 OBVIOUS

Claim 31 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Irie, Michael, Howard, Neri, Perlmann and Deo in view of Paul, Immunology 1993, pp. 934 ("Paul"). The Office Action alleges that Irie, Michael, Neri, Howard, Perlmann and Deo for the reasons recited in Section 2.2 above render obvious a method of treating or preventing cancer by administering a bispecific antibody directed toward C3b(i) and a phagocytic cell. The Office Action concedes that these references do not teach a bispecific antibody which binds to C3b(i) and an erythrocyte. However, the Office Action alleges that "Paul teaches that the CR1 receptors of erythrocytes functions in clearing immune complexes from the

circulation, and further allowing phagocytosis of said immune complexes by macrophages." The Office Action alleges that it would have been *prima facie* obvious to one skilled in the art at the time the claimed invention was made to treat or prevent cancer comprising administering a bispecific antibody that binds to C3b(i) and the CR1 antigen of erythocytes. For the reasons detailed below, the rejection cannot stand and should be withdrawn.

Claim 31 as pending recites a method of preventing or treating cancer in animal comprising administering to the animal an antibody immunospecific for a tumor cell antigen and a bispecific antibody immunospecific for C3b(i) and an erythrocyte cell receptor or antigen. As discussed above in Section 2.2, neither Irie, Michael, Howard, Neri, Perlmann nor Deo teach or suggest a bispecific antibody immunospecific for C3b(i) and an effector cell receptor or antigen, much less methods of preventing or treating cancer in an animal comprising administering to the animal an antibody immunospecific for a tumor cell antigen and a bispecific antibody immunospecific for C3b(i) and an effector cell receptor or antigen. Further, as acknowledged in the Office Action, neither Irie, Michael, Howard, Neri, Perlmann nor Deo teach or suggest a bispecific antibody which binds to C3b(i) and an erythrocyte.

The deficiencies of Irie, Michael, Howard, Neri, Perlmann and Deo are not cured by Paul. Paul teaches that CR1 is expressed on erythrocytes and binds to opsonized immune complexes. Paul does not teach anti-C3b(i) antibodies, much less bispecific antibodies immunospecific for C3b(i) and an erythrocyte cell receptor or antigen. Further, Paul does not teach, suggest or even contemplate methods of preventing or treating cancer in an animal comprising administering to the animal an antibody immunospecific for a tumor cell antigen and a bispecific antibody immunospecific for C3b(i) and an erythrocyte cell receptor or antigen. Thus, neither Irie, Michael, Howard, Neri, Perlmann, Deo nor Paul, alone or in combination, teach or suggest the methods recited in pending Claim 31, let alone provide a reasonable expectation of success. Accordingly, the rejection of Claim 31 under 35 U.S.C. § 103(a) cannot stand and should be withdrawn.

2.4. THE CITED ART DOES NOT RENDER CLAIMS 33, 34, 39 AND 43 OBVIOUS

Claims 33, 34, 39 and 43 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Irie, Michael, Howard, Neri and Perlmann in view of Schlom, Monoclonal Antibodies, In: Molecular Foundations of Oncology 1991, pp. 95-134 ("Schlom"). The Office Action

alleges that Irie, Michael, Howard, Neri and Perlmann for the reasons recited above render obvious a method of treating or preventing cancer by administering an anti-C3b(i) antibody. The Office Action concedes that these references do not teach the use of a monoclonal or humanized anti-C3b(i) antibody, or anti-C3b(i) antibody conjugated to a therapeutic or detectable agent. However, the Office Action alleges that "Schlom teaches monoclonal antibodies, humanized antibodies, and monoclonal antibodies conjugated to therapeutic or detectable labels." The Office Action alleges that it would have been *prima facie* obvious to one skilled in the art at the time the claimed invention was made to use an anti-C3b(i) monoclonal antibody, a humanized anti-C3b(i) antibody or an anti-C3b(i) antibody conjugated to a therapeutic or detectable agent. For the reasons detailed below, the rejection cannot stand and should be withdrawn.

Claim 33 has been amended so as to only depend from Claims 25 or 26. Further, Claims 39 and 43 have been amended so as to only depend from Claim 25. As discussed above, Claim 25 is directed to methods of treating or preventing cancer in an animal comprising administering to the animal an anti-C3b(i) antibody and an antibody immunospecific for a cancer cell antigen. Claim 26 is directed to methods of treating or preventing cancer in animal comprising administering to the animal a nucleic acid sequence encoding an anti-C3b(i) antibody and a nucleic acid sequence encoding an antibody immunospecific for a cancer cell antigen.

As discussed above in Section 2.2, neither Irie, Michael, Howard, Neri, nor Perlmann teach, suggest or even contemplate methods of preventing or treating cancer in animal comprising administering to the animal an anti-C3b(i) antibody, much less methods of treating or preventing cancer in an animal comprising administering to the animal an anti-C3b(i) antibody and an antibody immunospecific for a tumor cell antigen. Further, as acknowledged in the Office Action, neither Irie, Michael, Howard, Neri, nor Perlmann teach, suggest or even contemplate teach or suggest a monoclonal or humanized anti-C3b(i) antibody, or anti-C3b(i) antibody conjugated to a therapeutic or detectable agent. Schlom does not cure the deficiencies of Irie, Michael, Howard, Neri, and Perlmann. Schlom generically teaches monoclonal antibodies, humanized antibodies and monoclonal antibodies conjugated to therapeutic or detectable agents. Schlom does not teach or suggest anti-C3b(i) antibodies, let alone anti-C3b(i) monoclonal or humanized antibodies, or anti-C3b(i) antibodies conjugated to therapeutic or detectable agents. Further, Schlom does not teach,

suggest or even contemplate methods of preventing or treating cancer in an animal comprising administering to the animal an anti-C3b(i) antibody, much less methods of treating or preventing cancer in an animal comprising administering to the animal an anti-C3b(i) antibody and an antibody immunospecific for a tumor cell antigen. Thus, neither Irie, Michael, Howard, Neri, Perlmann nor Schlom, alone or in combination, teach or suggest the methods recited in pending Claims 33, 34, 39 and 43, let alone provide a reasonable expectation of success. Accordingly, the rejection of Claims 33, 34, 39 and 43 under 35 U.S.C. § 103(a) cannot stand and should be withdrawn.

2.5. THE CITED ART DOES NOT RENDER CLAIMS 24, 26 AND 38 OBVIOUS

Claims 24, 26 and 38 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Irie, Michael, Howard, Neri, Perlmann and Deo in view of Carson et al., U.S. Patent No. 5,985,847 ("Carson"). The Office Action alleges that Irie, Michael, Neri, Howard, Perlmann and Deo for the reasons recited above render obvious a method of treating or preventing cancer by administering an anti-C3b(i) antibody. The Office Action concedes that these references do not teach nucleic acids encoding an anti-C3b(i) antibody or nucleic acids encoding complement peptides. However, the Office Action alleges that "Carson teaches methods for administering nucleic acids encoding biologically active peptide and antibodies." The Office Action alleges that "[i]t would have been *prima facie* obvious to one of ordinary skill in the art at the time the claimed invention was made to administer the nucleic acids encoding the anti-C3b(i) antibody or complement in place of the anti-C3b(i) antibody polypeptide or complement polypeptides." For the reasons detailed below, the rejection cannot stand and should be withdrawn.

As discussed above, Irie, Michael, Howard, Neri, Perlmann and Deo do not teach or suggest or contemplate methods of treating or preventing cancer in animal comprising administering to the animal an anti-C3b(i) antibody. Applicants have amended Claim 38 such that it now only depends from Claim 26. As discussed above, Claim 26 is directed to methods of treating or preventing cancer in animal comprising administering to the animal a nucleic acid sequence encoding an anti-C3b(i) antibody and a nucleic acid sequence encoding an antibody immunospecific for a cancer cell antigen.

As discussed above, Irie, Michael, Howard, Neri, Perlmann and Deo do not teach or suggest or contemplate methods of treating or preventing cancer in animal comprising administering to the animal an anti-C3b(i) antibody, much less methods of treating or preventing cancer in an animal comprising administering to the animal a nucleic acid sequence encoding an anti-C3b(i) antibody and a nucleic acid sequence encoding an antibody immunospecific for a tumor cell antigen. The deficiencies of Irie, Michael, Howard, Neri, Perlmann and Deo are not cured by Carson. Carson generically teaches methods of administering naked polynucleotide sequences which encode biologically active polypeptides or peptides. Carson does not teach or suggest anti-C3b(i) antibodies or complement proteins, much less methods of preventing or treating cancer in an animal comprising administering to the animal a nucleic acid sequence encoding an anti-C3b(i) antibody and a nucleic acid sequence encoding an antibody immunospecific for a tumor cell antigen. Thus, Irie, Michael, Howard, Neri, Perlmann, Deo or Carson, alone or in combination, do not teach or suggest the methods recited in pending Claims 24, 26 and 38, much less provide a reasonable expectation of success. Accordingly, the rejection of Claims 24, 26 and 38 under 35 U.S.C. § 103(a) cannot stand and should be withdrawn.

CONCLUSION

Entry of the foregoing amendments and remarks into the file of the above-identified application is respectfully requested. Applicants believe that all of the present claims meet all the requirements for patentability. Withdrawal of all rejections and reconsideration of the amended claims are requested. An allowance is earnestly sought.

If any issues remain, the Examiner is requested to telephone the undersigned at (212) 790-2296.

Respectfully submitted,

Date: May 7, 2002

31,232

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Enclosures

EXHIBIT A

A MARKED UP VERSION OF THE CLAIMS AMENDED

AS OF MAY 7, 2002

IN U.S. APPLICATION SERIAL NO.: 09/724,620

ATTORNEY DOCKET NO.: 9426-048

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26. (Amended) A method for treating or preventing cancer in an animal, said method comprising administering to the animal a therapeutically or prophylactically effective amount of one or more nucleic acid sequences encoding one or more anti-C3b(i) antibodies and one or more nucleic acid sequences encoding one or more antibodies immunospecific for a cancer cell antigen.

27. (Amended) The method of Claim [23, 24,] 25 or 26, wherein at least one of the anti-C3b(i) antibodies is immunospecific specific for C3b(i) linked to IgM or IgG bound to cancer cells.

28. (Amended) The method of Claim [23, 24,] 25 or 26, wherein at least one of the anti-C3b(i) antibodies is immunospecific for C3b(i) linked to proteins or lipids on cancer cells.

29. (Amended) The method of Claim [23, 24,] 25 or 26, wherein at least one of the anti-C3b(i) antibodies is a bispecific antibody which is immunospecific for C3b(i) and an effector cell receptor or antigen.

32. (Amended) The method of Claim 29 in which the receptor or antigen is CR1, CR2, CR3, CR4, CD16, CD32, CD64, or CD89.

33. (Amended) The method of Claim [23, 24,] 25 or 26, wherein at least one of the anti-C3b(i) antibodies is a monoclonal antibody.

35. (Amended) The method of Claim [23, 24,] 25 or 26 further comprising administering to the animal IgG enriched plasma.

36. (Amended) The method of Claim [23, 24,] 25 or 26 further comprising administering to the animal IgM enriched plasma.

37. (Amended) The method Claim [23, 24,] 25 or 26 further comprising administering to the animal one or more complement components.

38. (Amended) The method of Claim [24 or] 26 further comprising administering to the animal one or more nucleic acid sequences encoding one or more complement components.

39. (Amended) The method of Claim [23 or] 25 in which at least one of the anti-C3b(i) antibodies is conjugated to a therapeutic agent.

43. (Amended) The method of Claim [23 or] 25 in which at least one of the anti-C3b(i) antibodies is conjugated to a detectable agent.

44. (Amended) The method of Claim [23, 24,] 25 or 26 further comprising administering to the animal plasma.

45. (Amended) The method of Claim [23, 24,] 25 or 26 in which the animal is a mammal.

46. (Amended) The method of Claim [23, 24,] 25 or 26 in which the animal is a human.